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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/391,768	09/08/1999	INGEMAR JOHANSSON	34645-446	9053

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ERICSSON INC.
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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/391,768

Applicant(s)

JOHANSSON ET AL

Examiner

Angela A. Armstrong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,12-15,17,25-29 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-8, 12-15, 17, 25-29, and 32-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 5-8, 12-15, 17, 25-29, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jarvinen et al (EP 0843301 A2) in view of Jansson (US Patent No. 5,579,435), and Rao (US Patent No. 6,101,466).

2. Regarding claims 1-8, 11-19, 21-22, 24-29 and 31, Jarvinen et al teach

Providing comfort noise parameter values to generate comfort noise at page 6, lines 23-24

Producing modified comfort noise parameters at page 6, lines 24-25

Using the modified comfort noise parameters to produce comfort noise at page 6, lines 23-50

Comfort noise generated at the speech decoder at Figure 10;

Background noise parameter is a spectrum parameter at Figure 2C; page 6, lines 23-50

Obtaining variable background noise information at page 9, line 45 – page 10, line 4

Computing mean value background parameters at the speech decoder at page 7, line 21 – page 8, line 33

Producing deviation values at page 7, line 21 – page 8, line 33

Implementation in a cellular telephone at page 12, lines 26-28

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Background noise parameters of the speech decoder varying over time at page 9, line 45
– page 10, line 4

Using background noise parameters to calculate filter coefficients at page 6, lines 26-43.

Jarvinen does not specifically teach that the comfort noise parameters are interpolated by the speech decoder. However, interpolating comfort noise parameters was well known, for the purpose of providing smoother transitions in the generated comfort noise.

It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Jarvinen to provide for the decoder interpolating the comfort noise parameters, for the purpose of improving the quality of the synthesized comfort noise by providing smooth transitions as the comfort noise is updated.

Jarvinen et al do not specifically teach in response to the variability information indicative of variability of the background noise parameter, perturbing the comfort noise parameter values to produce modified comfort noise parameters values perturbing at the speech decoder.

Rao teaches a method and system for improved speech transmission, which improves the representation of background noise, which has a noise parameter generator, which uses a weighted combination of past excitation and an autocorrelation of background noise.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Jarvinen to implement the background noise analysis and weighted parameter modification teachings of Rao, to produce perturbed noise

parameters for the purpose of providing comfort noise of good subjective quality that is generated on the receiving side that accurately represents the background noise experienced on the transmission side, as suggested by Jarvinen (page 9, lines 56-59).

Jansson teaches a system for discriminating between stationary and non-stationary signals which, at the decoder, distinguishes between stationary and non-stationary background noise, and sends the information to a parameter modifier, See Figure 2; col. 4, line 20 continuing to col. 6, line 62.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Jarvinen to implement the background noise analysis and parameter modification teachings of Jansson, to produce perturbed noise parameters for the purpose of providing comfort noise of good subjective quality that is generated on the receiving side that accurately represents the background noise experienced on the transmission side, as suggested by Jarvinen (page 9, lines 56-59).

Response to Arguments

3. Applicant's arguments with respect to claims 1-2, 5-8, 12-15, 17, 25-29, and 32-37 have been considered but they are not persuasive.

The Examiner argues, as indicated in the rejection above, interpolation of the comfort noise parameters by the speech decoder is an obvious modification for providing smoother transitions in the generated comfort noise as the comfort noise is updated.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela A. Armstrong
Examiner
Art Unit 2654

AAA
December 12, 2004

Angela Armstrong